

**Aspire Public Schools - College for
Certain, LLC**

**Operation and Maintenance
Plan for Cap Mitigation
Measures**

Aspire Public Schools - College for Certain, LLC
Former Pacific Electric Motors Site
1009 66th Avenue
Oakland, California
(Alameda County Department of Environmental
Health Fuel Leak Case Number RO0000411)

May 16, 2014



A handwritten signature in black ink, appearing to be "R. Goloubow", written over a horizontal line.

Ron Goloubow, P.G. (8655)
Principal Geologist

**Operation and Maintenance
Plan for Cap Mitigation
Measures**

Aspire Public Schools - College for
Certain, LLC
Former Pacific Electric Motors Site
1009 66th Avenue,
Oakland, California
(Fuel Leak Case Number
RO0000411)

Prepared for:

Aspire Public Schools -
College for Certain, LLC
1001 22nd Avenue Suite 100
Oakland, California 94606

Prepared by:

ARCADIS U.S., Inc.
2000 Powell Street, Suite 700
Emeryville, CA 94608
Tel 510 652 4500
Fax 510 652 4906

Our Ref.:

EM009155.0010

Date:

May 16, 2014

*This document is intended only for the use
of the individual or entity for which it was
prepared and may contain information that
is privileged, confidential and exempt from
disclosure under applicable law. Any
dissemination, distribution or copying of
this document is strictly prohibited.*

1.	Operation and Maintenance Overview	1
1.1	Introduction	1
1.2	Background	1
1.2.1	Revised Corrective Action Plan	2
1.2.2	Self-Implementing Cleanup Plan	3
1.3	Operation and Maintenance Goals and Objectives	5
1.4	O&M Personnel Roles and Responsibilities	6
1.4.1	O&M Coordinator	6
1.4.2	O&M Professional	7
2.	Site Description	8
2.1	Previous Site Investigations and Mitigation	8
2.2	Revised Corrective Action Plan	9
2.2.1	Soil Excavation and Removal	9
2.3	Post-Mitigation Site Conditions	10
3.	Summary of Engineering Controls	11
3.1	Hardscape and Landscape Cap Designs	11
4.	O&M Inspections	12
4.1	Annual Inspections	12
4.2	Unplanned Events	13
5.	Intrusive Work Activities	14
5.1	Standard Cap Repair	15
6.	Reporting and Record-Keeping	16
6.1	Reporting Requirements	16
6.2	Annual Inspection Summary Reports	16
6.3	Completion Reports for Intrusive Work	17
6.4	Record-Keeping and Retention	18
7.	Site Access	18

8. O&M Plan Modifications	19
9. References	19

Figures

Figure 1	Site Vicinity Map
Figure 2	Site Plan
Figure 3	Site Plan Showing Pavement Plan/Cap and In-Place Soil Exceeding PCB Cleanup Goals

Appendices

A	Inspection Checklist for Engineering Controls
B	Soil Management Plan
C	Annual Inspection Summary Report Outline

1. Operation and Maintenance Overview

1.1 Introduction

On behalf of Aspire Public Schools (Aspire) and College for Certain, LLC (CFC), ARCADIS U.S., Inc. (ARCADIS) has prepared this Operation and Maintenance (O&M) Plan for the surface cap installed at the former Pacific Electric Motors (PEM) site located at 1009 66th Avenue, Oakland, California (the Site; Figures 1 and 2). The purpose of the surface cap is to mitigate the exposure to soil containing polychlorinated biphenyls (PCBs) and other contaminants (e.g., lead and arsenic) at the Site. The surface cap will be in place at the Site in perpetuity. Should the land use change and/or the current structures (e.g., foundations, slab, pavement, and landscape areas that comprise the cap) are to be modified and/or removed, then the land owner will be obligated to contact the U.S. Environmental Protection Agency (USEPA) and the Alameda County Department of Environmental Health (ACEH) to present the new land use and plan to mitigate soil containing PCB, lead, and arsenic that is present at the Site. The USEPA and ACEH will be notified of a proposed change to the surface cap at least two weeks prior to the scheduled work.

Specific sampling and health and safety procedures to be implemented during future site modification that could disturb site soil, such as the repair of a subsurface utility at the Site, are presented in the Soil Management Plan (SMP) that is included as Appendix B to this document.

This O&M Plan is incorporated into the Land Use Covenant that is to be placed on the deed for this property. This O&M Plan includes procedures for:

1. Long-term operation, maintenance, monitoring (inspection), and repair of the engineering controls (i.e., the cap [including all of its components]) in perpetuity; and
2. Management of soils containing PCBs and other contaminants at the Site.

1.2 Background

Activities conducted at the Site by previous owners and operators of the property resulted in the presence of soil containing total petroleum hydrocarbons (TPH) as gasoline (TPHg), TPH as diesel (TPHd), TPH as motor oil (TPHmo), arsenic, lead, semivolatile organic compounds (SVOCs), PCBs, and volatile organic compounds

(VOCs). The removal action(s) were conducted in accordance with the following documents:

- Revised Corrective Action Plan, Proposed Aspire High School Site, 1009 66th Avenue, Oakland, California, dated July 17, 2009 (the revised CAP; ARCADIS 2009a).
- Self-Implementing Cleanup Plan (SICP) presented in a letter to the USEPA dated October 23, 2009 (ARCADIS 2009b) as modified by ARCADIS' November 18, 2009 (ARCADIS 2009c) and January 14, 2010 (ARCADIS 2010a) letters and USEPA's conditional approvals.
- USEPA's November 13, 2009 letter conditionally approving (Original Approval) ARCADIS' SICP (USEPA 2009a) and USEPA's amendments to that approval (Subsequent Approvals) dated April 5 and June 16, 2011 (USEPA 2011a, 2011b). USEPA's Original and Subsequent Approvals modified ARCADIS' SICP and ARCADIS' amendments to the SICP.

In order to mitigate any exposure to soil containing PCBs that is present at the Site, CFC has installed a surface cover (a cap) across the entire Site consisting of both hardscaped and landscaped areas. Details regarding this cap are provided on Figure 3. The thicknesses of the various elements of the cap were approved by the USEPA in their letters to CFC dated April 5 and June 16, 2011 (USEPA 2011a, USEPA 2011b).

1.2.1 Revised Corrective Action Plan

The Revised CAP summarized the results of previous investigations, presented the site conceptual model, quantified the baseline risk of constituents of concern (COCs), developed site-specific risk-based cleanup goals, evaluated potential remedies, and presented an implementation plan for the selected remedies. Remedial activities conducted at the Site included completion of the excavation activities as presented in the Revised CAP (ARCADIS 2009a) and the operation of the soil-vapor extraction/air sparging (SVE/AS) system. The revised CAP was approved by the ACEH in their letter to Aspire dated August 13, 2009 (ACEH 2009). The implementation of the CAP was reported to ACEH (and USEPA) in the report titled "Soil Removal Action Completion Report, College for Certain, LLC, Former Pacific Electric Motors, 1009 66th Avenue, Oakland, California (Fuel Leak Case No. RO0000411)," dated September 15, 2010 (ARCADIS 2010c). In addition, areas of PCB-containing soil were remediated in accordance with the CAP, the SICP submitted to the USEPA on October 23, 2009

ARCADIS

Operation and Maintenance Plan for Cap Mitigation Measures

Former Pacific Electric
Motors Site, 1009 66th
Avenue, Oakland, California

(ARCADIS 2009b), the response letter from U.S.EPA dated November 13, 2009 (USEPA 2009a), and ARCADIS' response letters to EPA dated November 18, 2009 (ARCADIS 2009c) and January 14, 2010 (ARCADIS 2010a). The configuration of the cap presented in Section 3 was presented in a letter to the USEPA by ARCADIS dated April 25, 2011 and the configuration of the cap was approved by USEPA in a letter dated June 16, 2011.

1.2.2 Self-Implementing Cleanup Plan

To address building materials and soil containing PCBs at the Site, ARCADIS prepared a SICP and submitted the document to the USEPA on October 23, 2009 (ARCADIS 2009b). The SICP received conditional approval from the USEPA in its letter to Aspire dated November 13, 2009 (Approval Letter; USEPA 2009a). The conditions provided in the Approval Letter were addressed in a letter transmitted by ARCADIS to the USEPA dated November 18, 2009 (ARCADIS 2009c). The scope of the SICP was further refined in an e-mail message from representatives of the USEPA to ARCADIS dated November 25, 2009 (USEPA 2009b).

The removal of the soil (and building materials) containing PCBs was documented in a letter report that was prepared in accordance with the Toxic Substance Control Act (TSCA) and transmitted to USEPA on August 13, 2010 (the TSCA Report; ARCADIS 2010b) and the Revised PCB Cleanup Completion Report dated May 16, 2014 (ARCADIS 2014).

The SICP addressed the following PCB-related issues:

- The demolition of structures and associated infrastructure formerly located on the Site.
- The collection and analysis of additional soil samples and samples of the building materials associated with the former warehouses that were demolished in January 2010.
- The remediation (excavation) of four areas of the Site where soil containing PCBs had been identified through soil samples collected at the Site.

Following the implementation and completion of the SICP activities, ARCADIS prepared a summary letter report documenting the removal of the PCB-containing soil at the Site (the Summary Report; ARCADIS 2010c). That report was prepared in

accordance with §40 Code of Federal Regulations (CFR) §761.125(c)(5) to describe the implementation of the TSCA SICP at the Site.

As discussed in conference calls and through the exchange of e-mail messages, the analytical results of confirmation soil samples collected at some locations at the Site during the SICP indicate that there are 12 locations where PCB-containing soil at concentrations greater than the cleanup criteria of 0.130 milligram per kilogram (mg/kg) is still present at the Site after the SICP was completed and prior to grading at the Site (ARCADIS 2014). The locations of the confirmation soil samples that contained PCB at concentrations greater than the cleanup criteria are illustrated on Figure 3. However, due to geotechnical work conducted to strengthen site soils for the redevelopment of the Site, the soil currently in those 12 locations may have been mixed with other soils. Thus the PCB-containing soil may be at locations that are not represented by the samples collected in those locations before the geotechnical and grading work. The geotechnical work to strengthen the soil included the cement treatment of the upper 18 inches of soil across the Site. This may have resulted in the movement of soil at the 12 locations where PCBs were detected at concentrations greater than the cleanup goal. ProUCL calculations prior to grading and geotechnical work at the site demonstrated a 95% Upper Confidence Limit (UCL) of PCB containing soil of 0.174 mg/kg total PCBs for the Site, which was slightly higher than the cleanup level of 0.130 total PCBs. However, the soils are covered by the cap.

The soil
was mixed
prior to
grading

In addition, approximately 25 yards of soil that contained PCBs at concentrations greater than the cleanup criteria were excavated and placed on site within the area of the Site where soil containing PCBs was already to remain in place at soil sample locations W1-WSDWall 2' and W2-WSDWall 2' (depicted on Figure 3). The encapsulated soil was placed at an elevation of approximately 2.5 to 3 feet set to the City of Oakland Vertical Datum, which is equivalent to approximately 5 feet below the surface of the pavement in this area of the Site. The excavation where the soil was placed was lined with Geotextile fabric and the soil was also covered with Geotextile fabric prior to raising the grade and compacting the area.

As presented in the Revised PCB Cleanup Completion Report (ARCADIS 2014), the following measures have been implemented at the Site to mitigate potential exposure to these soils and ensure these measures remain effective over time:

- Installation of TSCA cap across the surface of the Site
- Preparation of a Land Use Covenant

Not a
TSCA
cap

- Preparation of this O&M Plan (including the SMP)

The mitigation measures were implemented consistent with USEPA's requirements in its June 16, 2011 letter modifying the Original Approval and the TSCA PCB regulations in 40 CFR 761.61(c). In order to prevent future exposures to soil at the Site that contains PCBs at concentrations greater than 0.130 mg/kg, a cap consisting of both hardscaped and landscaped areas was installed over the entire Site. Details regarding this cap are provided on Figure 3. An O&M program consisting of inspections, maintenance, and repairs to the cap is required for implementation in perpetuity by the owner of the property to protect the installed cap and ensure the cap continues to provide adequate protection to site users. Intrusive activities, as defined in Section 5, are prohibited at the school site unless USEPA and the ACEH and other applicable regulatory agencies are notified of such planned modifications to the cap, the notification includes detailed plans describing the intended modifications, and USEPA and ACEH approve such modifications. In addition, such modifications must be consistent with the provisions of the Land Use Covenant for the Aspire Golden State College Preparatory Academy. The O&M Plan, if acceptable to USEPA, may be used to draft the environmental restrictions of the Land Use Covenant. The USEPA and ACEH will be notified of a proposed change to the surface cap at least two weeks prior to the scheduled work.

1.3 Operation and Maintenance Goals and Objectives

The primary goals of the O&M Plan are: (1) to prevent exposure to the soil containing PCBs; and (2) to protect the health of students, faculty, staff, O&M personnel, and visitors at the school site.

In order to accomplish these goals, the O&M Plan will address the following objectives:

- Minimize disturbances of PCB-containing soils;
- Describe the mitigation remedy, including the installed cap systems;
- Establish an inspection, maintenance, and repair program to identify areas of exposed PCB-containing soils or damaged cap system, and evaluate ongoing remedy effectiveness;
- Provide for timely repair or replacement, as needed, to restore damaged cap systems (repairs to the cap will be completed within 45 days of their discovery);

- Provide for record-keeping of inspections, maintenance, repairs, and reporting; and
- Maintain the records of inspections, maintenance, and repairs at the offices of both CFC and Aspire.

1.4 O&M Personnel Roles and Responsibilities

CFC will retain or employ and designate the following key O&M personnel responsible for implementing the O&M Plan at the school site: O&M Coordinator and O&M Professional. When necessary, the school will employ qualified contractors who will follow the SMP to perform intrusive work impacting the installed cap system at the school site. The SMP is included as Appendix B.

The names, contact information, and roles and responsibilities of key O&M personnel are included in the following sections.

1.4.1 O&M Coordinator

The O&M Coordinator will have knowledge of the site conditions including the presence of the PCB-containing soil, the presence of the cap mitigating exposure to the soil, and the O&M requirements related to the cap. The role of the O&M Coordinator is to work with the O&M Professional to ensure that the O&M Plan is implemented at the Site.

Mala Batra / Tim Simon
Aspire Public Schools
1001 22nd Avenue Suite 100
Oakland, CA 94606
Phone Numbers:
(510) 434-5000 (office)
(510) 434-5010 (fax)
Mala.batra@aspirepublicschools.org
tim.simon@aspirepublicschools.org

The responsibilities of the O&M Coordinator are to:

- Implement the O&M Plan;

- Be familiar with site conditions and cap systems installed at the school site;
- Evaluate work orders to determine if work will disturb the cap and native soil;
- Coordinate the intrusive work once the work has been approved by the USEPA and ACEH;
- Accompany the O&M Professional during annual inspections;
- Submit the Annual Inspection Summary Reports, and Intrusive Work Completion/Incident Reports to USEPA and ACEH;
- Ensure the retention of reports, forms, and records for five years; and
- Ensure that activities that may disturb the cap will not be conducted at the school site without the knowledge and approval of the O&M Coordinator and prior to USEPA/ACEH approval.

Note: The O&M Coordinator cannot make decisions regarding the cap without the approval of USEPA and ACEH when those decisions require regulatory agency involvement and approval.

cap m
nause
inspections
P&P Rec

which
would no
require
involvement

1.4.2 O&M Professional

The O&M Professional shall conduct the annual inspections. The O&M professional is defined as a California-registered engineer or geologist with expertise in conducting soil investigation and remediation (e.g., an engineer or geologist who is familiar with the cap system installed at the school site). The responsibilities of the O&M Professional are to:

- Conduct annual inspections in accordance with Section 4.1 below;
- Prepare and sign Annual Inspection Summary Reports; and
- Perform other environmental professional work related to the school site.

ARCADIS

Operation and Maintenance Plan for Cap Mitigation Measures

Former Pacific Electric
Motors Site, 1009 66th
Avenue, Oakland, California

2. Site Description

The Site is located on the northwestern side of 66th Avenue between East 14th Street and San Leandro Street (Figures 1 and 2). The area around the Site is developed with a mixture of commercial, industrial, government, and multi-family residential buildings. The Site is currently owned by Aspire (CFC is a limited liability partnership that was formed by Aspire). Additional historical land use information for the Site was presented in the Revised CAP (ARCADIS 2009a).

*Aspire
is
site owner*

The first industrial development of the property occurred around 1948 when the two buildings were constructed by PEM. PEM occupied the Site from 1948 to 2001. Activities conducted at the Site by PEM included manufacturing specialty magnets, power supplies, and components, and repairing motors, generators, transformers, and magnets. A 2,000-gallon gasoline underground storage tank (UST) was reportedly installed at the Site by PEM in 1975. In addition, the gasoline shed in the fueling area may have stored vehicle lubricants and oil for vehicle maintenance.

The structures that were on the property were demolished between November 2009 and February 2010 and the property was redeveloped into a school between March 2010 and September 2011. There are plans to construct a gymnasium at the Site in the summer of 2015.

*Summer
2015
Gym*

2.1 Previous Site Investigations and Mitigation

PEM removed the 2,000-gallon gasoline UST and associated pump island, piping, storage shed, and appurtenances in 1995. The UST was reportedly in good condition with no holes evident; however, free-phase gasoline product was observed on the water surface in the tank excavation (W.A. Craig 1997). Approximately 1,500 cubic yards of soil were removed in two excavation iterations completed during 1995 and stockpiled on the northern portion of the Site. Approximately 116,000 gallons of petroleum hydrocarbon-contaminated ground water were pumped from the excavation. Site investigation work during this time also included drilling GeoProbe borings (between excavation iterations) in an attempt to define the lateral and vertical extent of gasoline constituents. A dewatering sump used during soil excavation was later converted to an 8-inch-diameter well (thought to be WAC-1) during backfilling operations. Backfill reportedly consisted of clean, imported fill material. Reports indicate that the stockpiled excavated soils were disposed of in 1997 (W.A. Craig 1995a, 1995b, 1995c, 1997).

A 30-foot-wide by 70-foot-long by 9-foot-deep excavation for the remediation of petroleum hydrocarbon-contaminated soils was completed in April 2002 to the south of the original UST remedial excavation (Decon 2002a,b; Figure 2). Approximately 65,000 gallons of petroleum hydrocarbon-contaminated groundwater were removed from the excavation. Additional over-excavation was performed southeast of the 30-foot by 70-foot excavation. During backfill operations, an 8-inch-diameter extraction well was installed (EW-1). The excavation was backfilled with an unspecified depth of drain rock. Approximately 250 pounds of oxygen-releasing compound (ORC) slurry were mixed into the gravel fill. Clean, excavated native soil and imported Class II base rock comprised the balance of the backfill. Approximately 219 tons of petroleum hydrocarbon-contaminated soil were disposed of at an off-site facility (Decon 2002a,b). The name of the off-site disposal facility was not provided in the 2002 report.

In addition, in June 2002, a total of 25 soil borings were advanced to a depth of 13 feet below ground surface in the area of the former gasoline UST. Each of these borings was backfilled with 8 pounds of ORC followed by neat cement. ORC socks were also installed in wells MW-1 and WAC-1 (Decon 2002a,b).

2.2 Revised Corrective Action Plan

ARCADIS prepared the Revised CAP for the implementation of site remedies (ARCADIS 2009a). The Revised CAP summarized the results of previous investigations, presented the site conceptual model, quantified the baseline risk of COCs, developed site-specific risk-based cleanup goals, evaluated potential remedies, and presented an implementation plan for the selected remedies.

The Revised CAP recommended excavation and off-site disposal of contaminated shallow soils with SVE/AS to remediate contaminated soil, groundwater, and soil vapors (ARCADIS 2009a). The Revised CAP also recommended conducting an extended SVE/AS pilot test including ozone injection, if appropriate.

2.2.1 Soil Excavation and Removal

Between November 2009 and August 2010, soil excavation activities were completed at the Site. This work resulted in the removal of approximately 8,400 tons of contaminated soil from the Site. Depending on waste constituents and their concentrations, the waste was transported to either Chemical Waste Management Hazardous Waste Landfill located in Kettleman City, California or Republic Waste's Vasco Road Class II Landfill located in Livermore, California (see the following table).

Soil Disposal Summary

Destination	Waste Classification	Volumes (tons)
Kettleman Hills Landfill	PCB-TSCA (50 mg/kg & greater)	1,280.85
Kettleman Hills Landfill	Non-RCRA (Lead)	1,977.83
Vasco Road Landfill	Non-Hazardous (PCBs at less than 50 mg/kg)	5,102.04
Keller Canyon Landfill	Construction Debris (includes building demolition debris)	2,476.60

To ensure that the removal activities successfully met the cleanup goals, the 95% UCL of the mean of the cleanup confirmation soil sample data was calculated for each COC and compared with their respective cleanup goal. The results of this analysis indicated that concentrations of TPHmo and PCBs (up to 2.5 mg/kg) remained in soil at the Site at concentrations greater than the cleanup goals. The potential human health risks associated with residual concentrations of PCBs in soils is being mitigated by the installation of the TSCA cap.

2.3 Post-Mitigation Site Conditions

The completed Aspire Golden State College Preparatory Academy serves grades 6 through 12, with capacity for 570 students, and opened in August 2011. The school occupies approximately 1.4 acres and consists of:

- 3 two-story buildings (approximately 41,430 square feet total including 24 full-sized classrooms, 4 laboratories, 3 girls and 3 boys restrooms, and 4 staff restrooms);
- An asphalt-paved parking area with access via two driveways on 66th Avenue (one for ingress and one for egress);
- An asphalt-paved area for basketball; and
- Several planter areas.

The mitigation measures/engineering controls that comprise the cap systems are illustrated on Figure 3.

3. Summary of Engineering Controls

The remedy described in the Revised PCB Cleanup Completion Report was the on-site containment of PCB-containing soil using engineering controls in the form of a cap placed over site soil to prevent or minimize exposures (ARCADIS 2014). The cap includes the placement of buildings or other barrier materials including, but not limited to, concrete, asphalt, clean fill, or landscaping. Hardscape and landscape engineering cap systems installed at the school site are summarized on Figure 3 and are described in Section 3.1 below.

Figure 3 is a site plan showing the mitigation measures/engineering controls that comprise the cap system.

3.1 Hardscape and Landscape Cap Designs

Hardscape and landscape cap systems, as identified in the letter from ARCADIS to EPA entitled "Proposed Toxic Substance Control Act (TSCA) Cap for Pavement Areas – Former Pacific Electric Motors Facility, 1009 66th Avenue, Oakland, California," dated April 25, 2011 (ARCADIS 2011a), and approved by the USEPA in a letter to CFC dated June 16, 2011 (USEPA 2011b), were emplaced across the school site and include: a two-story building, concrete and asphalt paved areas, and an asphalt parking lot. Hardscape cap systems consist of multiple layers of differing materials (i.e., imported base rock and asphalt or concrete).

In the landscaped and planter areas (see Figure 3), the native soil was covered by a minimum of 12 inches of clean fill over cement-treated native soil. The cement treated soil may contain low concentrations of PCBs. In accordance with a request from the USEPA, samples of the imported soil were collected and analyzed in accordance with a Soil Sampling Plan (ARCADIS 2011b). The results of these samples indicated that the imported soil met the requirements for imported soil (i.e., were below the cleanup criteria of 0.130, 80, and 7 mg/kg for PCBs, lead, and arsenic, respectively).

These areas will be properly maintained (i.e., inspected annually and replenished with additional clean fill, as necessary, to ensure that the cement-treated native soil that may contain low concentrations of PCBs is adequately covered). Soil to be used to replenish the planters will be commercially available top soil provided by a landscaping contractor as required. The key objectives to replenish the imported soils in the landscape and planter areas are to prevent disturbance of the cement-treated native

soils and mixing of those native soils with existing clean soils and those clean soils that may be used to replenish the landscape and planter areas.

Annual inspections at the Site will include inspection of the landscape and planter areas to confirm that vegetable gardens are not being grown at the school site as part of any school curriculum that may end up being consumed by students or others at the school site.

4. O&M Inspections

4.1 Annual Inspections

Annual inspections of the cap will be conducted, and will be performed by the O&M Professional along with the O&M Coordinator. As described in Section 1.4.1, the O&M Professional is defined as a California-registered engineer or geologist with expertise in conducting soil investigation and remediation (e.g., an engineer or geologist who is familiar with the cap system installed at the school site). The O&M Coordinator will accompany the O&M Professional during the annual inspection.

The purpose of the annual inspection is to assess the condition of the cap and changes in site conditions or usage. The Annual Inspection Summary Report will describe any on-site construction activities or any other significant information related to the PCB engineering controls. If applicable the inspection will also review the completion of any repairs that were made to the cap. The inspection will include a visual inspection of the cap to identify and locate areas that require repair.

The key components of the inspection will include:

1. Identification of any cracks in the cap measuring greater than 0.25 inches wide and 3 inches long.
2. Identification of any areas of the cap requiring repairs.
3. Documentation of changes in site conditions or usage.
4. Description of any on-site construction activities. However, any construction activity is to be approved by the USEPA and County before the start of construction. Any such construction would be considered an alteration or modification to the cap.

5. A qualitative evaluation of the amounts of cover (soil) in the landscaped areas. Should additional soil be required in the landscaped areas, commercially available soil will be imported to the Site within 15 days of the discovery of the need for more soil.
6. Complete Inspection Checklist for Engineering Control (Appendix A).

The annual inspections will be completed in July so that repairs (if required) can be completed prior to the beginning of the school year.

During inspections, items identified for required maintenance will have a specified action date for completion of the required repairs. The O&M Coordinator is responsible for follow-up review to ensure that identified repairs are completed on schedule, and will sign-off in the completion blocks of the inspection reports. The O&M Coordinator will notify representatives of CFC of any failures of the engineering controls that have not been repaired within 72 hours of discovery; such notifications will include a proposed schedule for completion of the required repairs and maintenance.

The Annual Inspection Summary Report will be prepared within 45 days after completion of each annual inspection, in accordance with the reporting requirements specified in Section 6.2 of this O&M Plan. The annual inspection reports will be submitted to the USEPA and the ACEH and maintained at the school site.

The O&M Professional and O&M Coordinator will be responsible for follow-up review to ensure that identified repairs are completed on schedule, and will sign-off in the completion blocks of the inspection reports.

4.2 Unplanned Events

School employees will contact the O&M Coordinator following unplanned events (e.g., fires, broken utility lines, floods and/or heavy rain, or seismic events) during which caps may be compromised and/or PCB-containing soils may be exposed. "Heavy" rain will be defined as rainfall exceeding 0.50 inches in one hour in Oakland, California. "Significant" seismic events will include those earthquakes occurring nearby, of a magnitude exceeding 5.0 on the Richter scale. The O&M Coordinator will document all inspections and required repairs or maintenance, and incorporate such documents into the Annual Inspection Summary Report.

The O&M Professional and O&M Coordinator will notify the ACEH and USEPA of any failures (i.e., compromised integrity or possible breach in the cap) of the engineering controls resulting from unplanned events that are not repaired within 14 days of discovery; such notifications will include a proposed schedule for completion of the required repairs and maintenance.

The O&M Professional and O&M Coordinator will inspect the cap within 5 days following seismic activity greater than a 5.0 Richter scale magnitude earthquake. The findings of this inspection will be summarized in a letter that will be submitted to the ACEH and USEPA within 15 to 30 days after the inspection.

5. Intrusive Work Activities

Prior to conducting intrusive work activities on the cap, the O&M Professional and O&M Coordinator will provide a work plan presenting the scope of the activities to be conducted to the USEPA and ACEH. This work plan must be approved by USEPA and/or the ACEH prior to commencement of the intrusive work activities. These intrusive activities must be conducted in accordance with applicable provisions of this O&M Plan, the Land Use Covenant, and the SMP (Appendix B). Intrusive work includes any construction or maintenance activities that encounter soil beneath the cap regardless of the location of those soils (except soils that were demonstrated not to contain PCBs and other contaminants and were imported to the landscape and/or planter areas). These activities include but are not limited to: digging, drilling, excavating, grading, repairing, removing, trenching, filling, gardening, and other soil movement that may penetrate or otherwise compromise the caps in place, thereby opening pathways for possible human exposures to PCB.

Proposed modifications and disturbances to the cap must be conveyed to the ACEH and USEPA in the form of a work plan for review and approval prior to commencing with the work. These activities can result in modifications to the cap and the cap must be repaired consistent with agency-approved plans and design. The USEPA and ACEH will be notified of a proposed change to the surface cap at least two weeks prior to the scheduled work.

The following procedures are required when performing intrusive construction, repair, and/or maintenance activities to: (1) ensure that safeguards are in place to prevent or minimize PCB exposures to anyone at the school site; (2) prevent untrained or unauthorized personnel from performing intrusive work in PCB areas; and (3) restore the integrity of the in-place engineering controls if they are impaired or compromised by

such activities. The O&M Coordinator will oversee these procedures for all PCB-intrusive work (as defined in Section 5 of this O&M Plan) performed by, or on behalf of, CFC at the school site:

- Provide information regarding the location of the cap systems, cross-section construction details, and locations of all soils containing PCB to selected contractors;
- Verify that selected contractors and their employees will comply with federal and state Occupational Safety and Health Administration requirements;
- Require that construction and maintenance work be performed in such a manner to meet or exceed the existing cap conditions;
- Evaluate timelines, school, and work schedules to ensure that PCB-intrusive work is completed as soon as possible to minimize exposure risks;
- Require reasonable restrictions to school site access to reduce exposures to non-workers;
- Implement dust control practices that utilize water;
- Manage any PCB-containing or impacted soils brought to the surface in accordance with the SMP (see Appendix B), and in compliance with applicable, relevant, and appropriate provisions of state and federal law; and
- Comply with all applicable, relevant, and appropriate federal, state, and local requirements.

5.1 Standard Cap Repair

Intrusive construction or maintenance work activities will be conducted to meet or exceed the existing cap conditions (see Figure 3).

The procedures to be followed during intrusive work include the following:

- Stabilization of site;
- Limitation on site access, as appropriate;

- Management of excavated soils, including dust control, work site access, and soil segregation;
- Cap repair, or fill replacement procedures, to match the existing cap conditions; and
- Evaluation and use of new fill materials.

6. Reporting and Record-Keeping

Reports concerning inspection, maintenance, and repair of the cap will be submitted to USEPA Region 9 and the ACEH. In addition, plans to modify the cap must be submitted to these agencies for approval before implementation.

6.1 Reporting Requirements

The O&M Coordinator will maintain records of training provided to O&M personnel, compile appropriate information, develop, and file the following reports at the school site in a timely manner:

- Annual Inspection Summary Reports
- Completion Reports for Intrusive work

6.2 Annual Inspection Summary Reports

Annual Inspection Summary Reports will summarize the findings from annual inspections, and will document completions, delays, or failures to repair any items identified as needing repairs. The Annual Inspection Summary Report will be signed by the O&M Professional and O&M Coordinator, and will be completed no later than 60 calendar days after the annual inspection has been conducted. Annual Inspection Summary Reports will follow the format outlined in Appendix C, and will be included and maintained in files at the school site.

Annual Inspection Summary Reports will include the following:

- Results of the annual visual inspection, including measurements and an evaluation of the conditions;

- A description of actions taken since completion of the previous O&M annual inspection, including:
 - Any repairs to the installed cap remedy that were identified and carried out;
 - Any significant changes in site conditions or usage (e.g., paving, grading, utility trenching, playgrounds, or picnic areas); and
 - Any additional on-site construction or other significant information that may impact the installed cap remedy (e.g., installation of portable buildings or maintenance facilities);
- A description of any maintenance or repairs identified as needed during the O&M annual inspection;
- A description of any recommendations for O&M Plan modification;
- A description of actions planned or expected to be undertaken before the next O&M annual inspection that will impact the in-place engineering controls;
- Recommendations concerning any repairs to the installed caps that are still needed;
- Photographs depicting site conditions with brief identifying captions or descriptions. During the annual inspection, the O&M Professional will take photographs for documentation, as appropriate, to demonstrate stability and/or failure of engineering controls;
- Conclusions regarding the ongoing effectiveness of the cap systems; and
- Any additional PCB investigation must be reported to USEPA and County in a separate document and submitted 60 days after sample collection.

6.3 Completion Reports for Intrusive Work

Within 60 days of completion, intrusive work activities will be documented in a Completion Report prepared by the O&M Professional. Each Completion Report will include the following information:

- Date work was performed;

- Work location, with maps and figures;
- Work activities performed, including restoration of cap systems where necessary;
- Work practices taken to prevent potential exposures;
- Variance or modifications (if any) of the existing cap conditions; and
- Summary of finished site conditions.

The O&M Professional will incorporate all Completion Reports for PCB-intrusive work conducted during the year into the Annual Inspection Summary Report.

6.4 Record-Keeping and Retention

All documentation records (e.g., data, reports) prepared under this O&M Plan will be maintained by the O&M Coordinator at the school site. The records will include, but are not limited to:

- Periodic inspection checklists, Annual Inspection Summary Reports, Completion Reports for intrusive work, and photographs associated with all of the above;
- Records of public inquiries for information about PCB at the school site; and
- Investigation and mitigation documents (e.g., the Combined Environmental Mitigation Plan and Cap Completion Report).

All records will be preserved by the O&M Coordinator for a minimum of five years after the conclusion of each relevant activity.

Due to the significant volume of paper that could be generated, the O&M Coordinator may elect to maintain paper copies of reports from the most recent 12 months, and preserve the rest as electronic files.

7. Site Access

At all reasonable times and upon request, the O&M Coordinator will arrange for O&M personnel to have access to the school site. During intrusive activities, access to the work area will be limited by the placement of temporary fencing around the work area.

8. O&M Plan Modifications

When long-term performance of the cap remedy has been confirmed, the O&M Coordinator may seek to modify the requirements of the O&M Plan based on site-specific monitoring results and/or conditions. The request to modify the O&M Plan will be submitted in writing to ACEH and USEPA in the form of a work plan for review. O&M Plan modifications may include the following:

- Changes in the frequency of O&M activities;
- Modification, replacement, or addition of components to the O&M Plan if O&M activities fail to achieve the objectives of protecting public health, safety, and the environment; and/or
- Evaluation, design, construction, and/or operation of additional remedial measures to achieve the O&M objectives.

9. References

- Alameda County Environmental Health (ACEH). 2009. Final CAP Approval for Fuel Leak Case No. RO0000411 and GeoTracker Global ID T0600101950, Pacific Electric Motor, 1009 66th Avenue, Oakland, CA 94621. August 13.
- ARCADIS U.S., Inc. (ARCADIS). 2009a. Revised Corrective Action Plan, Proposed Aspire High School Site, 1009 66th Avenue, Oakland, California. July 17.
- . 2009b. Toxic Substance Control Act Self-Implementing Cleanup Notification and Certification Former Pacific Electric Motors Facility 1009 66th Avenue in Oakland, California. October 23.
- . 2009c. Conditional Approval of the Toxic Substance Control Act Self-Implementing Cleanup Notification and Certification, Former Pacific Electric Motors Facility, 1009 66th Avenue in Oakland, California. November 18.
- ARCADIS. 2010a. Toxic Substance Control Act Risk-Based Cleanup Notification and Certification 40 CFR 761.61(c), Former Pacific Electric Motors Facility, 1009 66th Avenue, Oakland, California. January 14.

ARCADIS

Operation and Maintenance Plan for Cap Mitigation Measures

Former Pacific Electric
Motors Site, 1009 66th
Avenue, Oakland, California

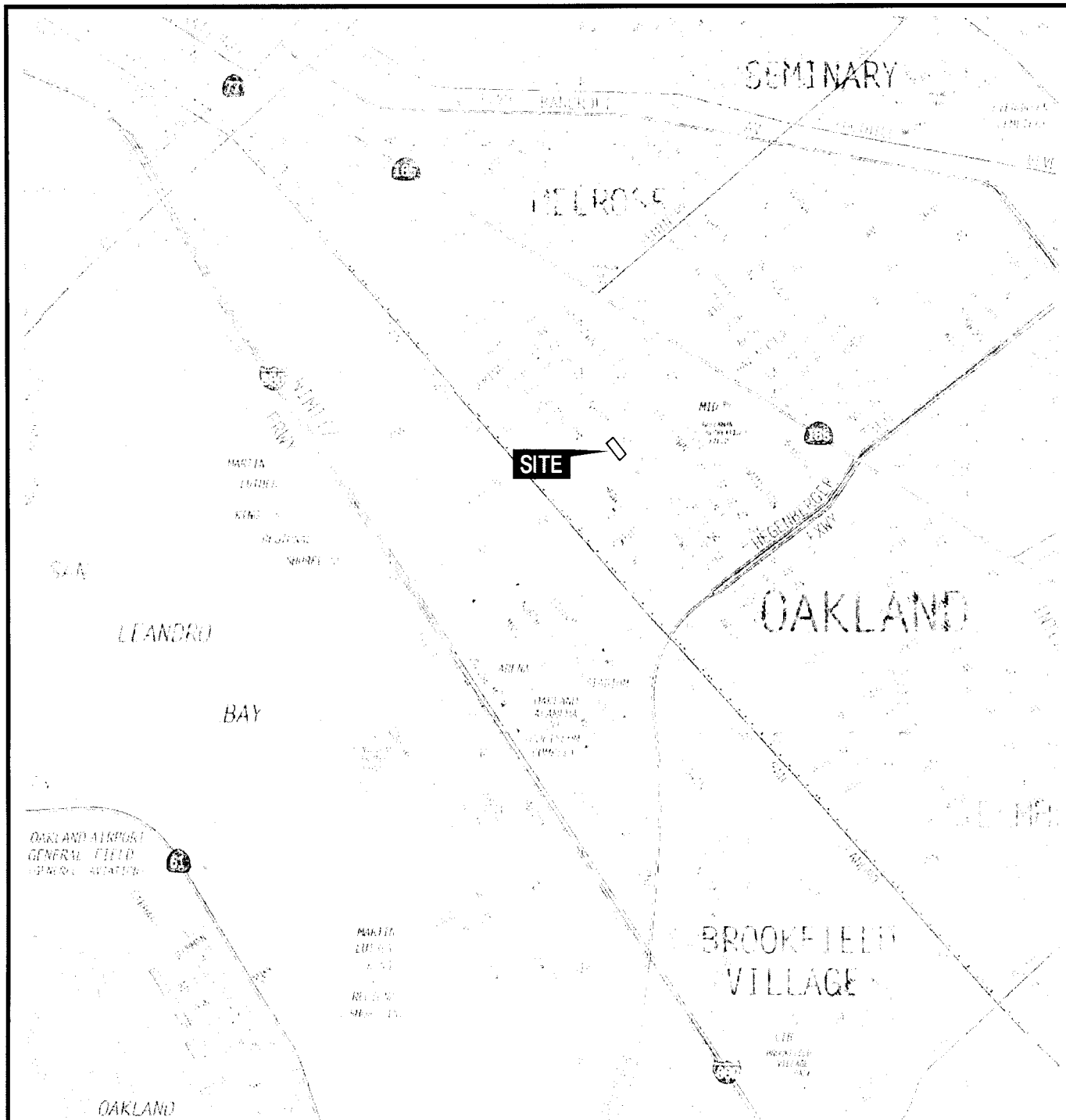
- . 2010b. Implementation of the Toxic Substances Control Act Self-Implementing Cleanup Notification at the Former Pacific Electric Motors Facility, 1009 66th Avenue, Oakland, California. August.
- . 2010c. Soil Removal Action Completion Report, College for Certain, LLC, Former Pacific Electric Motors, 1009 66th Avenue, Oakland, California (Fuel Leak Case No. RO0000411). September 15.
- . 2011a. Proposed Toxic Substance Control Act (TSCA) Cap for Pavement Areas – Former Pacific Electric Motors Facility, 1009 66th Avenue, Oakland, California. April 25.
- . 2011b. Soil Sampling Plan for Soil to be Imported for Use in the Proposed Landscaped Areas at the Former Pacific Electric Motors Facility, 1009 66th Avenue, in Oakland, California. June 11.
- . 2014. Revised PCB Cleanup Completion Report, College for Certain, 1009 66th Avenue, Oakland, California. May 16.
- Decon Environmental Services, Inc. (Decon). 2002a. Remediation Project Report for Pacific Electric Motor Co., 1009 66th Avenue, Oakland, CA 94612. July 9.
- . 2002b. Remediation Project Report – Addendum for Pacific Electric Motor Co., 1009 66th Avenue, Oakland, CA 94612. October 2.
- United States Environmental Protection Agency (USEPA). 2009a. Polychlorinated Biphenyls – USEPA Conditional Approval Under-40 C.F.R. § 761.61(a), Toxic Substances Control Act -- "Toxic Substances Control Act Self-Implementing Cleanup Notification and Certification Former Pacific Electric Motors Facility 1009 66th Avenue in Oakland, California." November 13.
- . 2009b. USEPA. Email Message from Carmen Santos to Ron Goloubow; Subject: PCBs: Aspire School Site in Oakland, California - Conditional Approval of SAP and LFR's November 18, 2009 Letter. November 25.
- . 2011a. Aspire Public Schools 1009 66th Avenue, Oakland, California USEPA Conditional Approval of Polychlorinated Biphenyls Cleanup Notification Under Toxic Substances Control Act New request for Additional Cap Modifications. April 5.

ARCADIS

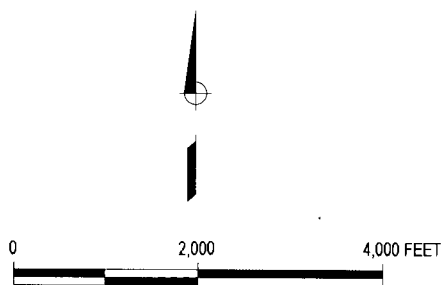
Operation and Maintenance Plan for Cap Mitigation Measures

Former Pacific Electric
Motors Site, 1009 66th
Avenue, Oakland, California

- . 2011b. Aspire Public Schools 1009 66th Avenue, Oakland, California USEPA Conditional Approval of Polychlorinated Biphenyls Cleanup Notification Under Toxic Substances Control Act New request for Additional Cap Modifications. June 16.
- W.A. Craig, Inc. 1995a. Final Closure Plan for Underground Storage Tank Removal for Pacific Electric Motor Co., 1009 66th Avenue, Oakland, CA 94621. March 14.
- . 1995b. Correspondence to ACDEH via facsimile. Attached soil and water sample results, and next phase of work due to contamination in the soil and pit water. March 31.
- . 1995c. Subsurface Environmental Investigation for Pacific Motor Co., 1009 66th Avenue, Oakland, CA 94621. May 16.
- . 1997. Excavation and Sampling Report for Pacific Electric Motor Co., 1009 66th Avenue, Oakland, CA 94621. May 12.



MAP SOURCE: Copyright 1995, Thomas Bros. Map ALAMEDA COUNTY 2002 Edition



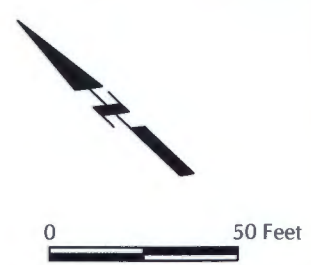
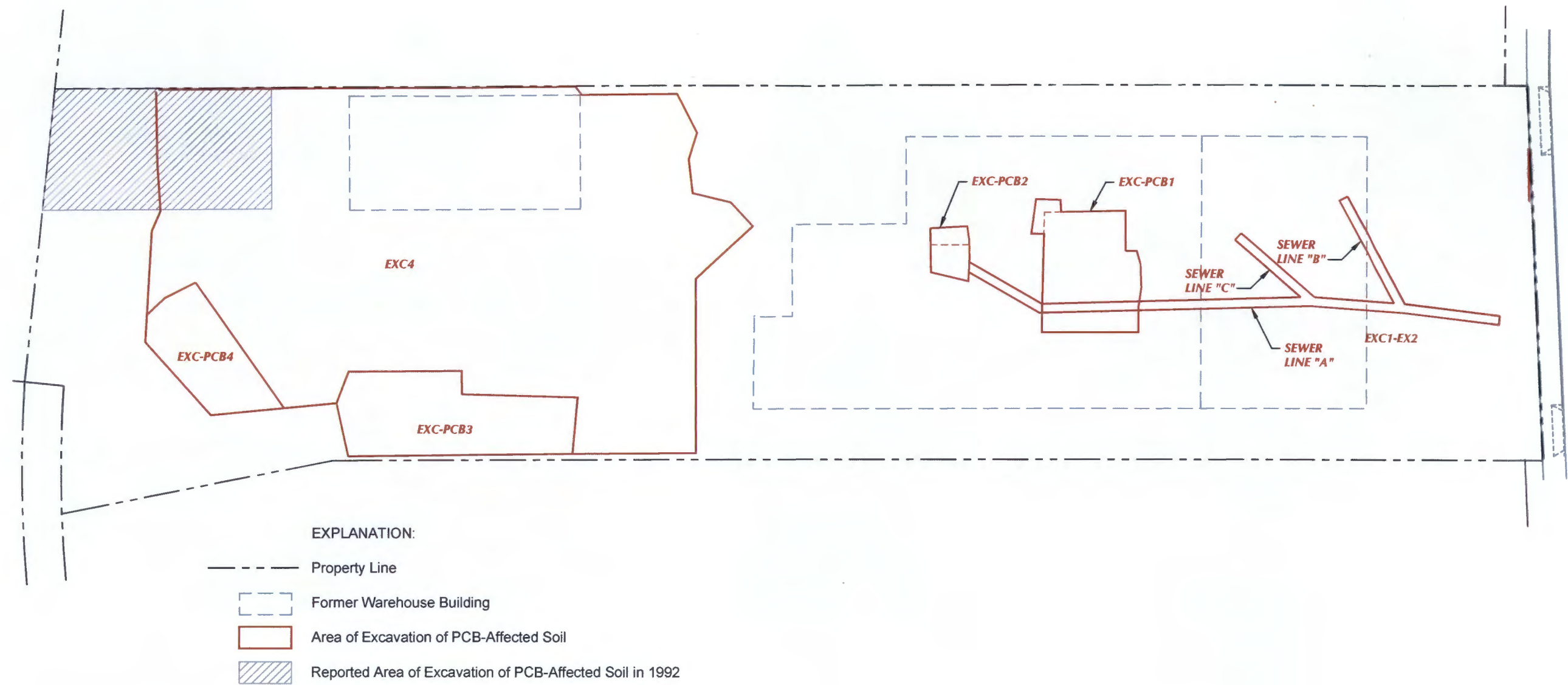
1009 66TH AVENUE, OAKLAND, CALIFORNIA

SITE VICINITY MAP

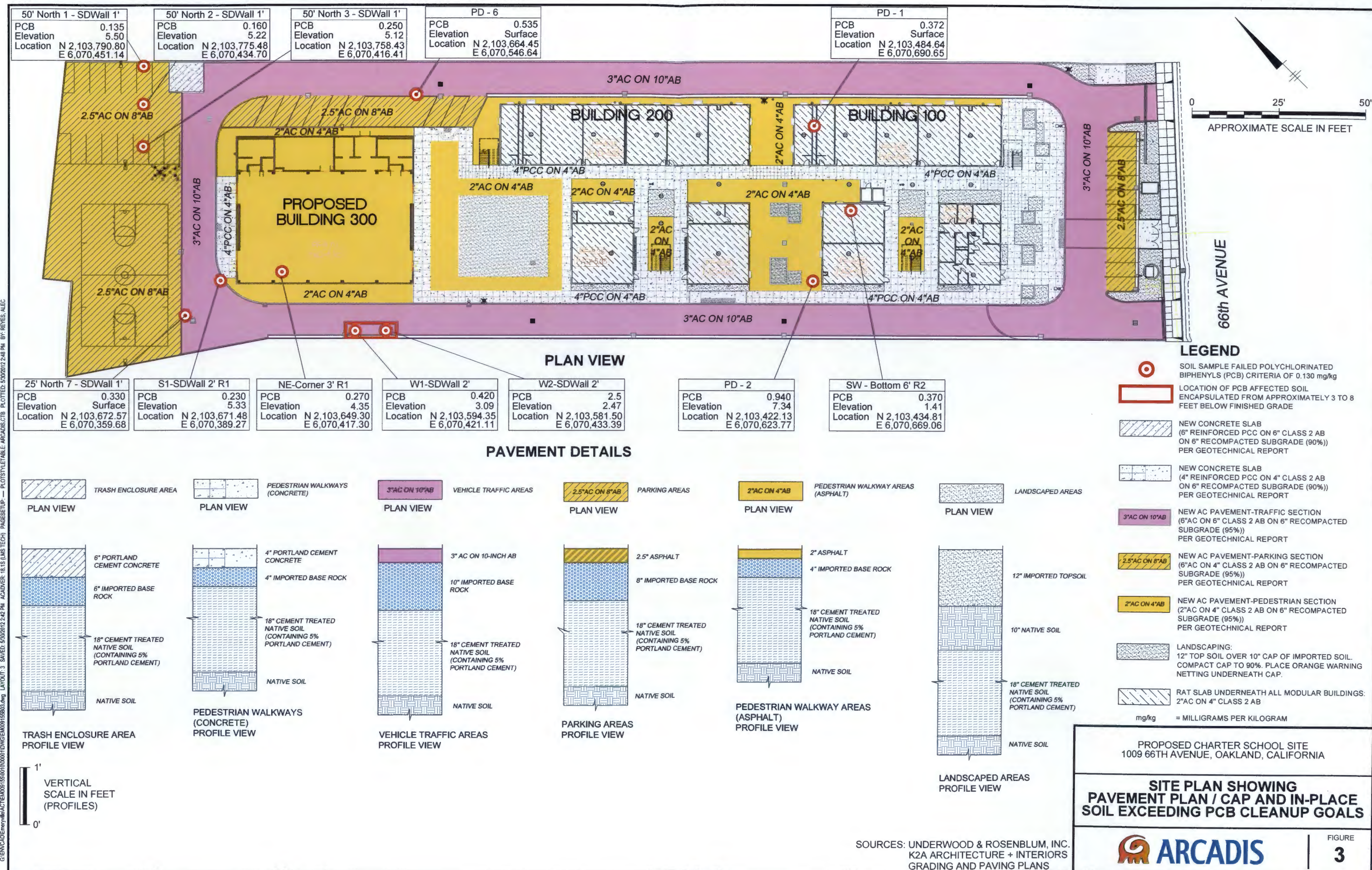


FIGURE
1

CITY/Reqd DIV/Group/Reqd DB/Reqd LD/Opd PIC/Opd PM/Reqd TM/Opd LVR/Option/Off-Ref
G:\ENVCAD\Energyville\ACT\EN001\55001000001\DWG\EN001\55B02.dwg LAYOUT: SITE PLAN SAVED: 3/30/2012 12:08 PM ACADVER: 18.13 (LMS TECH) PAGES: 18 BY: REYES, ALEC



PROPOSED CHARTER SCHOOL SITE 1009 66TH AVENUE, OAKLAND, CALIFORNIA	
SITE PLAN	
	FIGURE 2





Appendix A

Inspection Checklist for Engineering
Controls

INSPECTION CHECKLIST FOR CAP REMEDIES
College For Certain
Oakland, CA

Date		Inspector Name/Signature	
Inspection Frequency		Supervisor Name/Signature	

Area		Surface Condition OK?	Maintenance Required	Recommended Action Schedule		
				Plan	Implement	Completion
Hardscape Systems	Building Foundations	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>			
	Paved Parking and Vehicle Traffic Areas	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>			
	Parking Ingress/Egress	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>			
	Parking Area in the Rear of the Property	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>			
	Interior Walkway Areas Around Buildings	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>			
	Trash Enclosure	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>			
Landscape Systems	Landscaped Areas near 66 th Avenue	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>			
	Landscaped Areas Near Class Room Buildings	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>			
	Landscaped Area Adjacent to Proposed Building 300 (the gymnasium)	Yes <input type="checkbox"/> No <input type="checkbox"/>	Yes <input type="checkbox"/> No <input type="checkbox"/>			

Notes:

1. All areas are shown on Figure 2.
2. Inspection of the Hardscape Systems should ensure that concrete/asphalt pad and artificial material covers have not been disturbed or damaged in any way.
3. Inspection of the Landscape Systems should ensure that vegetation on the surface remains healthy; if applicable.



Appendix B

Soil Management Plan



Infrastructure · Water · Environment · Buildings

Imagine the result

**Aspire Public Schools - College for
Certain, LLC**

Soil Management Plan

Former Pacific Electric Motors Site
1009 66th Avenue, Oakland, California
(Fuel Leak Case Number RO0000411)

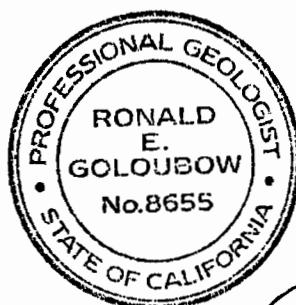
May 16, 2014

Certification	ii
1. Introduction	1
2. Project Overview	2
3. Known or Potentially Chemical-Impacted Soil	3
4. Cleanup Goals Established for Soil	5
5. Soil Management During General Construction Activities	6
5.1 Potential Soil Disturbance Activities	6
5.2 Notifications	6
5.2.1 Emergency Contacts	7
5.3 Soil Screening	7
5.4 Soil Management Strategy	8
5.4.1 Requirements for Imported Fill	8
5.4.2 Stockpile Management	9
5.4.3 Soil Characterization and Off-Site Reuse/Disposal	9
6. References	10
Figures	
1 Site Vicinity Map	
2 Site Plan	
3 Site Plan Showing Pavement Plan/Cap and In-Place Soil Exceeding PCB Cleanup Goals	
4 Site Plan Showing Excavation Areas and Confirmation Sample Locations	

ARCADIS

Certification

All hydrogeologic and geologic information, conclusions, and recommendations in this document have been prepared under the supervision of and reviewed by an ARCADIS U.S., Inc., Professional Geologist.



Expires Nov. 30, 2013

5/16/14

Ron Goloubow, P.G. 8655

Date

Principal Geologist

California Professional Geologist (8655)

1. Introduction

ARCADIS has prepared this Soil Management Plan (SMP) on behalf of Aspire Public Schools (Aspire) and College for Certain, LLC (CFC) for the former Pacific Electric Motors site located at 1009 66th Avenue in Oakland, California (the Site; Figures 1 and 2). The Site has been redeveloped into the Aspire Golden State College Preparatory Academy, which serves grades 6 through 12 and has capacity for 570 students; the school opened in August 2011. The school occupies approximately 1.4 acres and consists of:

- 3 two-story buildings (approximately 41,430 square feet total including 24 full-sized classrooms, 4 labs, 3 girls and 3 boys restrooms, and 4 staff restrooms);
- An asphalt-paved parking area with access via two driveways on 66th Avenue (one for ingress and one for egress);
- An asphalt-paved area for basketball; and
- Several planter areas.

This report is intended to comply with a request from the United States Environmental Protection Agency (USEPA) and Alameda County Environmental Health (ACEH) to prepare an SMP for the Site.

This SMP outlines sampling and health and safety procedures to be implemented during future site modification that could disturb site soil, such as the repair of a subsurface utility at the Site.

This SMP is intended to apply to any subsurface disturbance at the Site. The purpose of this SMP is to communicate the presence of chemicals identified in soil at the Site so that appropriate safety measures can be implemented to protect persons doing invasive site work and to appropriately manage soils at the Site. This SMP provides general protocols for the proper management of soil encountered and/or disturbed during excavation, construction, utility work, site redevelopment, and other work that may encounter impacted soil at the Site.

This SMP is not intended to replace federal, state, or local regulations or regulations addressing worker exposure including Federal and California Occupational Safety and Health Administration (OSHA) training and worker protection rules and regulations,

Code of Federal Regulations (CFR) Title 29, Part 1910.120, or California Code of Regulations (CCR) Title 8, § 5192. It is the responsibility of the Property Owner to ensure that all workers, tenants, contractors, and subcontractors are made aware of the existing conditions, specifically the known presence and magnitude of chemicals so that the appropriate protective measures are implemented.

Issues not addressed in this document include construction and general OSHA worker safety requirements, including the Hazardous Waste Operations and Emergency Response Standard. Contractors who perform the site work are responsible for the health and safety of their own employees and must prepare a health and safety plan that is satisfactory to the owner, Aspire, prior to beginning work at the Site. All work at the Site must be completed in compliance with the federal, state, and local requirements not addressed in this document.

2. Project Overview

The site area is 2.51 acres and is located on the western side of 66th Avenue between East 14th Street (to the north) and San Leandro Street (to the south). The area around the Site is developed with a mixture of commercial, industrial, government, and multi-family residential buildings. The Site is bounded by a residential development to the north, Oakland Fire Department Station Number 2 to the east across 66th Avenue, Fruitvale Business Center to the south, and Northstar International Container Freight and Container Consolidation Services to the west.

The structures formerly associated with Pacific Electric Motors (and infrastructure) have all been demolished. The areas of affected soil have been removed in accordance with the Revised Corrective Action Plan, Proposed Aspire High School Site, 1009 66th Avenue, Oakland, California (Fuel Leak Case No. RO0000411; the CAP) submitted to the ACEH on July 17, 2009 (ARCADIS 2009a). In addition, areas of polychlorinated-biphenyl (PCB)-containing soil were remediated in accordance with the CAP, the Self-Implementing Cleanup Plan (SICP) submitted to the USEPA on October 23, 2009 (ARCADIS 2009b), the response letter from USEPA dated November 13, 2009 (USEPA 2009), and LFR Inc.'s (now ARCADIS) response letters to EPA dated November 18, 2009 (ARCADIS 2009c) and January 14, 2010 (ARCADIS 2010). The configuration of the surface cap presented in Section 3 was presented in a letter to the USEPA by ARCADIS dated April 25, 2011 and the configuration of the cap was approved by USEPA in a letter dated June 16, 2011.

A new school (the Golden State College Preparatory Academy) was developed on the property in 2010 as depicted on Figure 2. As part of the redevelopment of the Site, the ground surface comprised of roadways, sidewalks, parking areas, buildings, and planter areas is serving as a cap to mitigate the potential exposure to the affected soil at the Site.

3. Known or Potentially Chemical-Impacted Soil

Prior to redeveloping the Site, remedial tasks were conducted at the Site to remove soil containing elevated concentrations of lead, arsenic, PCBs, benzene, and total petroleum hydrocarbons as gasoline (see Figures 2, 3, and 4). The removal action for the PCB-containing soil was completed in accordance with the following:

- No. 40 CFR §761.61(a) 40 CFR 761.61 (c) of Toxic Substances Control Act (TSCA) regulations, EPA's conditional approval of the SICP, and EPA's amendments to its approvals.

Although the remedial actions were highly effective in removing the affected soil, the analytical results for 12 confirmation soil samples collected as part of the removal action for the PCB-containing soil indicated that PCBs were present at concentrations greater than the cleanup goal of 0.130 milligrams per kilogram (mg/kg) established for the Site (see the table below and Figure 3 and 4). Due to geotechnical work conducted to strengthen site soils for the redevelopment of the Site, the soil currently in those 12 locations was mixed during the cement treatment of the upper 18 inches of soil across the Site. Thus the PCB-containing soil may be at locations that are not represented by the samples collected in those locations before the geotechnical and grading work. Thus, the PCB concentrations detected in the 12 samples are no longer representative of the PCB concentrations at the Site due to mixing of the soils. The geotechnical work to strengthen the soil included the cement treatment of the upper 18 inches of soil across the Site. This may have resulted in the mixing/cement treatment of the soil at the 12 locations where PCBs were detected at concentrations greater than the cleanup goal.

Sample ID	Depth below TSCA Cap - current ground surface (in feet)	PCBs (in mg/kg)
50' North 1 - SDWALL1'	1.0	0.135
50' North 2 - SDWALL1'	1.3	0.160
50' North 3 - SDWALL1'	1.4	0.250
25' North 7 - SDWALL1'	1.3	0.330
S1-SDWALL 2' R1	1.2	0.230
NE-CORNER 3' R1	2.2	0.270
W1-SDWALL 2'	3.4	0.420
W2-SDWALL 2'	4.0	2.500
SW-Bottom 6' R2	3.9	0.370
PD-1	1.3	0.372
PD-2	1.4	0.940
PD-6	1.2	0.535

Notes: The depth of the samples below the TSCA cap was established by subtracting the sample elevation from the finished floor elevation of the top of the TSCA cap.

To mitigate the human health risk posed by the affected soil, a surface cap was installed over the ground surface of the entire Site. The configuration of the cap summarized below was presented in a letter to the USEPA by ARCADIS dated April 25, 2011 and the configuration of the cap was approved by USEPA in a letter dated June 16, 2011.

- **Trash Enclosure Area**
 - Native soil
 - 18 inches of cement-treated native soil
 - 6 inches of imported aggregate base rock
 - 6 inches of Portland cement concrete (ground surface)
- **Pedestrian Walkway Areas – Concrete**
 - Native soil
 - 18 inches of cement-treated native soil
 - 4 inches of imported aggregate base rock
 - 4 inches of Portland cement concrete (ground surface)

- **Vehicle Traffic Areas**
 - Native soil
 - 18 inches of cement-treated native soil
 - 10 inches of imported aggregate base rock
 - 3 inches of asphalt concrete (ground surface)
- **Parking Areas**
 - Native soil
 - 18 inches of cement-treated native soil
 - 8 inches of imported aggregate base rock
 - 2.5 inches of asphalt concrete (ground surface)
- **Pedestrian Walkway Areas – Asphalt**
 - Native soil
 - 18 inches of cement-treated native soil
 - 4 inches of imported aggregate base rock
 - 2 inches of asphalt concrete (ground surface)
- **Landscaped Areas**
 - Native soil
 - 18 inches of cement-treated native soil
 - 10 inches of native soil
 - 12 inches of imported top soil (ground surface)

4. Cleanup Goals Established for Soil

Risk-based cleanup goals were developed for the Site with an emphasis on health protection by incorporating conservative assumptions in the risk-based calculations. Cleanup goals were calculated by algebraically transforming the standard human health risk assessment equations to solve for a concentration given a target cancer risk of 1×10^{-6} or Hazard Index of 1.

Recommended cleanup goals resulting from this process are presented below:

Total Petroleum Hydrocarbons (TPH)

- TPH as motor oil: 2,500 mg/kg
- TPH as diesel: 180 mg/kg

Metals

- arsenic: 7 mg/kg (site-specific background level)
- cadmium: 7.4 mg/kg
- chromium: 750 mg/kg
- cobalt: 80 mg/kg
- copper: 230 mg/kg
- lead: 80 mg/kg
- zinc: 600 mg/kg

Organic Compounds

- PCBs: 0.130 mg/kg

5. Soil Management During General Construction Activities

The following sections present the contingency protocols to be followed if unknown contamination is encountered during general site maintenance activities.

5.1 Potential Soil Disturbance Activities

Activities that may cause soil disturbance at the Site include: grading, grubbing, utility line repair-replacement, removal/excavation of soil, trenching, and performing other construction activities. If these or other subsurface activities are performed, this SMP will be followed.

5.2 Notifications

Prior to performing invasive activities, Aspire will notify USEPA and the ACEH a minimum of two weeks prior to conducting the proposed activities. A letter describing the scope of the work to be conducted will be provided to describe the nature of the invasive activities. The work will not begin until USEPA and the ACEH have provided approval of the scope of work. At the direction of Aspire, observation of the activities may be provided by ARCADIS. However, the USEPA and ACEH may conduct field oversight of these activities.

5.2.1 Emergency Contacts

The persons indicated in the table below must be notified within 48 hours if subsurface disturbance is anticipated or if unexpected affected soil is encountered. Additionally, if soil is to be transported from the Site to an appropriate landfill, the following contacts must be notified.

Emergency Contacts

Contact	Telephone
Owner – Aspire Public Schools Contact: Tim Simon, Project Manager	510.434.5071 or 831.710.1865
Alameda County Environmental Health Contact: Jerry Wickham	510.567.6791
USEPA Contact Carmen Santos	415.972.3360 office
Environmental Consultant – ARCADIS Contact: Ron Goloubow	510.652.4500 office 510.501.1789 cell
Site Construction Manager Contact: *** to be designated before work begins***	*** to be designated before work begins***

If an emergency situation requiring medical attention, containment assistance, or other emergency assistance arises, workers should call 911 and follow emergency procedures provided in the Contractor's Health and Safety Plan.

5.3 Soil Screening

Prior to conducting intrusive activities at the Site, analytical data for soil samples collected in the area where the work is proposed to take place will be reviewed to assess disposal options. If analytical data for soil samples is not available within approximately 100 feet of the proposed work area, additional soil samples will be collected for the analysis of PCBs prior to commencing with the intrusive work. During intrusive activities, excavated soil will be visually inspected for evidence of impacts and/or screened using a photoionization detector as applicable. The following actions shall be taken for excavated soil:

- Stockpile potentially impacted soil separately on plastic and in accordance with the SMP (see Section 5.4.2 below);
- Characterize the stockpiled soils as specified in Section 5.4.3, and dispose of stockpiled soil at an appropriately licensed facility (to be determined based on the analytical results of the samples collected from the stockpiled soil);
- Document and report the results of the soil samples to the USEPA and ACEH; and
- Replace the surface cap according to the description in Section 3.

Information relevant to each of these actions is described in more detail in the following sections.

5.4 Soil Management Strategy

Soil will be reused at the Site to the extent possible (only if soil does NOT contain contaminants of concern at concentrations greater than the cleanup criteria). Suspected contaminated soil (e.g., soil exhibiting discoloration, oily liquids, powders, or other substances, odors, or detections on field equipment) will be stockpiled and tested. This soil will only be reused if it meets the remedial goals discussed in Section 4.

5.4.1 Requirements for Imported Fill

Soil that is imported to the Site for use as fill must be sampled prior to being brought on site. A four-point composite sample should be collected for every 500 cubic yards of fill material imported to the Site and submitted for the following analyses:

- Volatile organic compounds by USEPA Method 8260B (solvent extraction EPA method 3540C)
- California Assessment Manual 17 metals by USEPA Method 6010B
- Semivolatile organic compounds by USEPA Method 8270
- PCBs by USEPA Method 8082A Soxhlet extraction, USEPA method 3540C

- Organochlorine pesticides by USEPA Method 8081
- TPH by USEPA Method 8015M

The analytical results for each of the constituents should be less than the cleanup goals provided in Section 4 of the SMP or the final Environmental Screening Levels for shallow soil (less than 1 meter below ground surface) for commercial and industrial properties where the groundwater is not a potential source of drinking water (Table B-2, RWQCB 2013), with the exception of Arsenic. Arsenic concentrations should be less than the site-specific background concentration of 7 mg/kg (see discussion presented in Appendix B of the CAP).

5.4.2 Stockpile Management

Potentially impacted soil generated from construction activities will be stockpiled on site. The stockpiles will likely be located at the northern portions of the Site but will depend on the location of the work. The stockpiles will be placed on, and covered with, polyethylene sheeting (tarps) to provide separation and prevent off-site soil migration due to wind and water erosion. In addition, a berm made of hay bales or another accepted material will be placed around each stockpile to capture any potential runoff from the stockpile. No stockpiled soils will be removed from the Site without Aspire's written permission.

Dust control measures will be used during excavation/work activities such that no visible dust migration is observed. Typically, misting with water and the use of anchored tarps can be used to control dust emissions. Mitigation procedures to prevent wind erosion of an active stockpile will include applying sufficient water or other accepted material to keep the soil slightly damp, but not so much water to create runoff from oversaturation. Stockpiles will not be piled excessively high (less than approximately 20 feet above the ground surface) to further prevent airborne transport of stockpile material.

5.4.3 Soil Characterization and Off-Site Reuse/Disposal

Soils will be adequately sampled and characterized/profiled as presented below prior to disposal to an off-site and appropriately licensed facility. Prior to characterization, the receiving facility will be identified and acceptance criteria will be provided to Aspire and ARCADIS for review and approval. No soil samples will be collected and/or analyzed without prior written approval of Aspire.

Sample collection and analyses will be required prior to transporting the soil off site for disposal or reusing the soil on site. The samples will be collected using the protocol described in the Soil Sampling Plan for imported soil for landscaping, dated June 24, 2011 (ARCADIS 2011). The proposed sampling will conform to the California Department of Toxic Substances Control (DTSC) Information Advisory – Clean Import Fill Material as follows:

- Up to 1,000 cubic yards – one sample per 250 cubic yards
- 1,000 to 5,000 cubic yards – four samples for the first 1,000 cubic yards plus one sample for each additional 500 cubic yards
- Greater than 5,000 cubic yards – 12 samples for the first 5,000 cubic yards plus one sample for each additional 1,000 cubic yards

Soils for removal and off-haul can be profiled either in-place or from the stockpile. Subsequent to permission by Aspire, all soils removed from the Site for disposal will be disposed of at a disposal facility approved by Aspire and that meets the regulatory and permitting requirements to accept the waste. All soil transportation and disposal documentation must be forwarded to Aspire upon completion of the disposal activities. All documentation regarding soil removal and disposal must be submitted to USEPA within 14 days after disposal.

6. References

ARCADIS. 2009a. Revised Corrective Action Plan, Proposed Aspire High School Site, 1009 66th Avenue, Oakland, California (Fuel Leak Case No. RO0000411) 1009 66th Avenue, Oakland, Alameda County, California. July 17.

ARCADIS. 2009b. Toxic Substance Control Act Self-Implementing Cleanup Notification and Certification Former Pacific Electric Motors Facility 1009 66th Avenue in Oakland, California. October 23.

ARCADIS. 2009c. Conditional Approval of the Toxic Substance Control Act Self-Implementing Cleanup Notification and Certification Former Pacific Electric Motors Facility 1009 66th Avenue in Oakland, California. November 18.

ARCADIS

Soil Management Plan

Former Pacific Electric
Motors Site, 1009 66th
Avenue, Oakland, California

ARCADIS. 2010. Toxic Substance Control Act Risk-Based Cleanup Notification and Certification 40 CFR 761.61(c), Former Pacific Electric Motors Facility, 1009 66th Avenue, Oakland, California. January 14.

ARCADIS. 2011. Soil Sampling Plan for Soil to be Imported for Use in the Proposed Landscaped Areas at the Former Pacific Electric Motors Facility, 1009 66th Avenue, in Oakland, California. June 24.

Department of Toxic Substances Control (DTSC). 2001. Information Advisory - Clean Import Fill Material http://www.dtsc.ca.gov/Schools/upload/SMP_FS_Cleanfill-Schools.pdf. October.

Regional Water Quality Control Board, San Francisco Bay Region (RWQCB). 2013. Revised Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater. Revised. February.

United States Environmental Protection Agency (USEPA). 2009. Polychlorinated Biphenyls – USEPA Conditional Approval Under 40 C.F.R. § 761.61(a), Toxic Substance Control Act - "Toxic Substance Control Act Self-Implementing Cleanup Notification and Certification Former Pacific Electric Motors Facility 1009 66th Avenue in Oakland, California." November 13.



MAP SOURCE: Copyright 1995, Thomas Bros. Map ALAMEDA COUNTY 2002 Edition



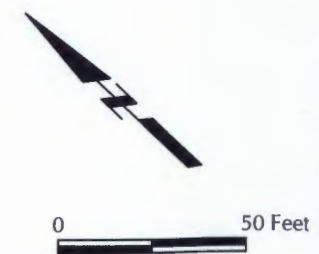
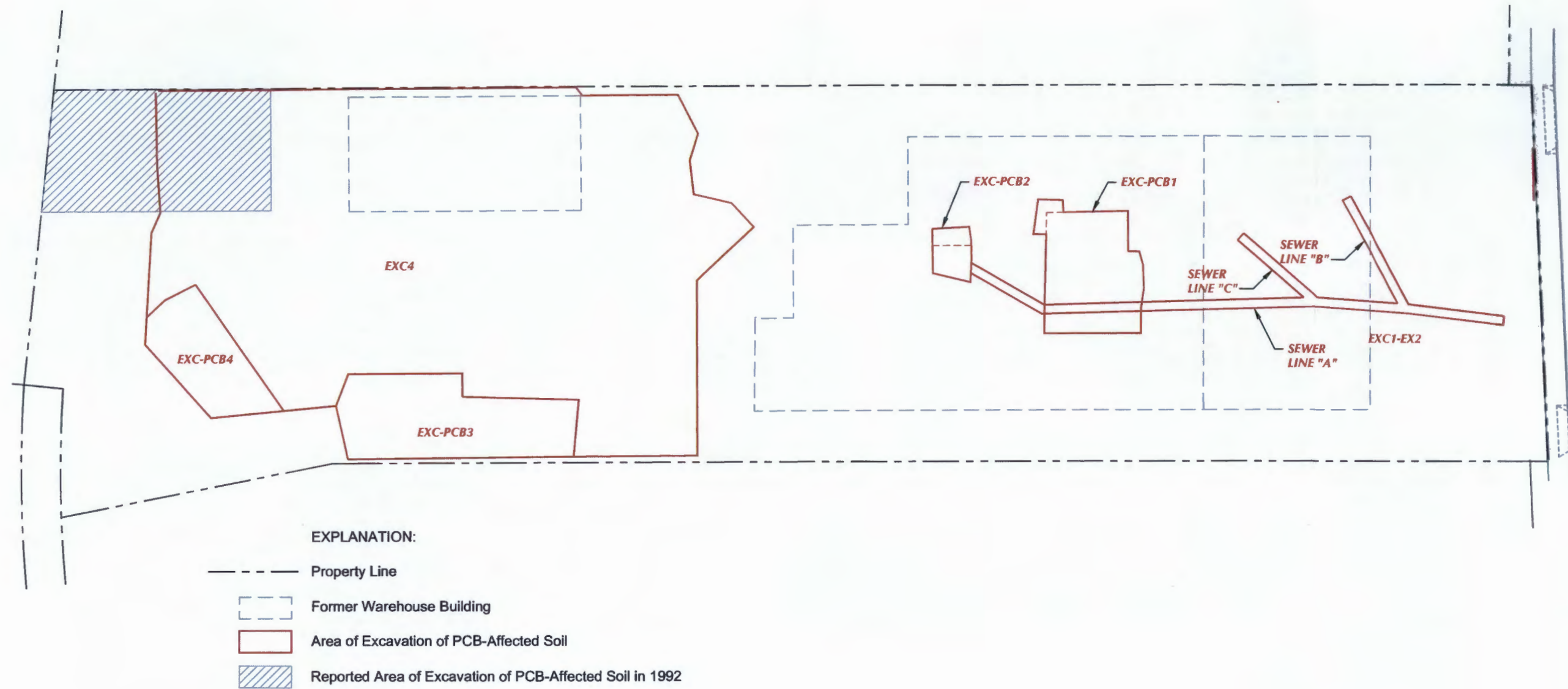
1009 66TH AVENUE, OAKLAND, CALIFORNIA

SITE VICINITY MAP



FIGURE
1

CITY: (Reqd) DIV: GROUP: (Reqd) DB: (Reqd) LD: (Opt) PIC: (Opt) PM: (Reqd) TM: (Opt) LYN: (Opt) ON: "OFF" REF
G:\ENYCAD\Emery\1550100001\DWG\EM0015502.dwg LAYOUT: SITE PLAN SAVED: 5/30/2012 12:08 PM ACADVER: 18.15 (LMS TECH) PAGESETUP: --- PLOTSTYLETABLE: ARCADIS.CTB PLOTTED: 9/29/2012 1:00 PM BY: REYES, ALEC

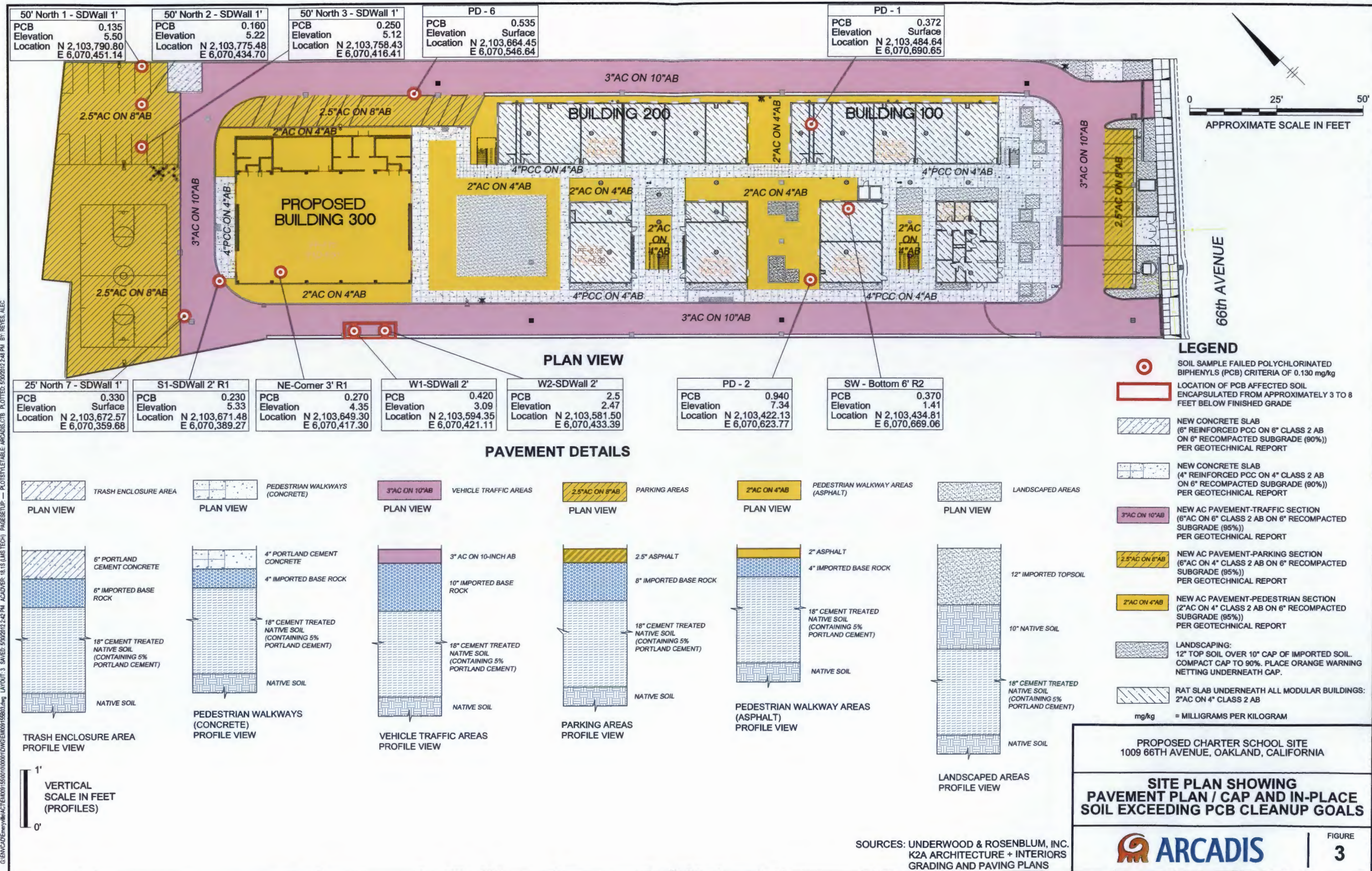


PROPOSED CHARTER SCHOOL SITE
1009 66TH AVENUE, OAKLAND, CALIFORNIA

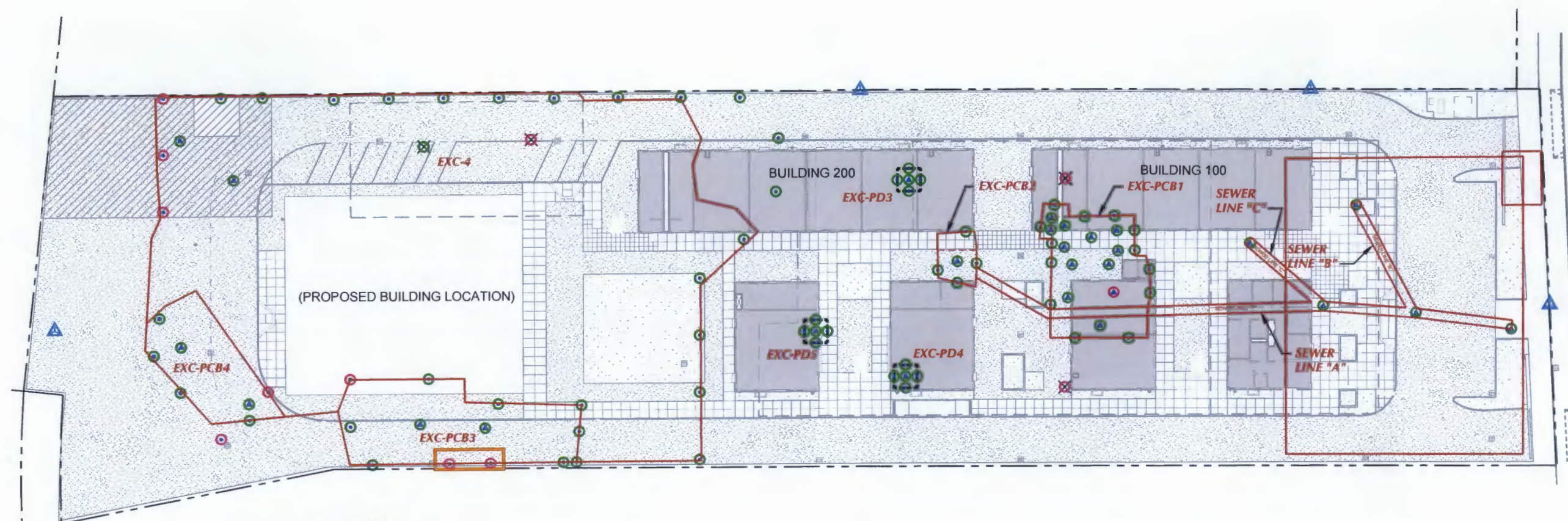
SITE PLAN



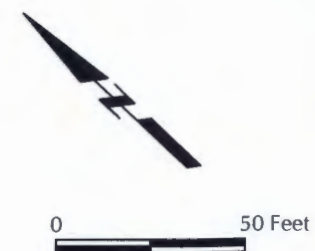
FIGURE
2



CITY (Read) DIV (GROUP) (Read) DB (Read) LD (Opt) PIC (Opt) PM (Read) TM (Opt) LVR (Option) OFF (REF)
G:\ENVCAD\Emeryville\ACT\EM09155\EM091550016\Revised CCRDWG\EM09155 B04.DWG LAYOUT: 4 SAVED: 10/14/2013 3:48 PM ACADVER: 18.1.5 (LMS TECH) PAGES: 4 PLOTSETUP: — PLOTSTYLETABLE: ARCADIS.CTB PLOTTED: 10/14/2013 3:47 PM BY: REYES, ALEC



- EXPLANATION:
- Property Line
 - Former Warehouse Building
 - Area of Excavation
 - Reported Area of Excavation of PCB-Affected Soil in 1992
 - Air Monitoring Station
 - Sidewall Confirmation Sample Location and ID
 - ▲ Bottom Confirmation Sample Location and ID
 - ✕ Post Demolition Surface Soil Sample
 - Passed Polychlorinated Biphenyls (PCB) Criteria of 0.130 mg/kg
 - Failed PCB Criteria of 0.130 mg/kg
 - Location of PCB Affected Soil Encapsulated from Approximately 3 to 8 Feet Below Finished Grade
 - EXC-PD5 Post Demolition Excavation Areas. Excavated Soil Encapsulated in EXC PCB3.



PROPOSED CHARTER SCHOOL SITE
1009 66TH AVENUE, OAKLAND, CALIFORNIA

**SITE PLAN SHOWING EXCAVATION
AREAS AND CONFIRMATION SAMPLE
LOCATIONS**





Appendix C

Annual Inspection Summary Report
Outline

ANNUAL INSPECTION SUMMARY REPORT OUTLINE

TABLE OF CONTENTS

- 1.0 GENERAL INFORMATION
- 2.0 SUMMARY OF ACTIONS COMPLETED SINCE PREVIOUS ANNUAL INSPECTION
- 3.0 NARRATIVE OF OBSERVATIONS
 - 3.1 Purposes of Current Annual Inspection
 - 3.2 Annual Inspection Checklist and Field Log
 - 3.3 Discussion
 - 3.3.1 Hardscape Areas – Cap Integrity
 - 3.3.1.1 Corrective Action Schedule
 - 3.3.2 Landscape Areas – Cap Integrity
 - 3.3.2.1 Corrective Action Schedule
- 4.0 CONCLUSIONS AND RECOMMENDATIONS
 - 4.1 Conclusions
 - 4.2 Recommendations
- 5.0 SIGNATURE

Attachments

- A Site Location Map
- B Site Plan Map
- E Intrusive Work Completion Reports (if applicable)
- F Annual Inspection Checklist and Field Notes
- G Photo Log: Include photographs depicting site conditions